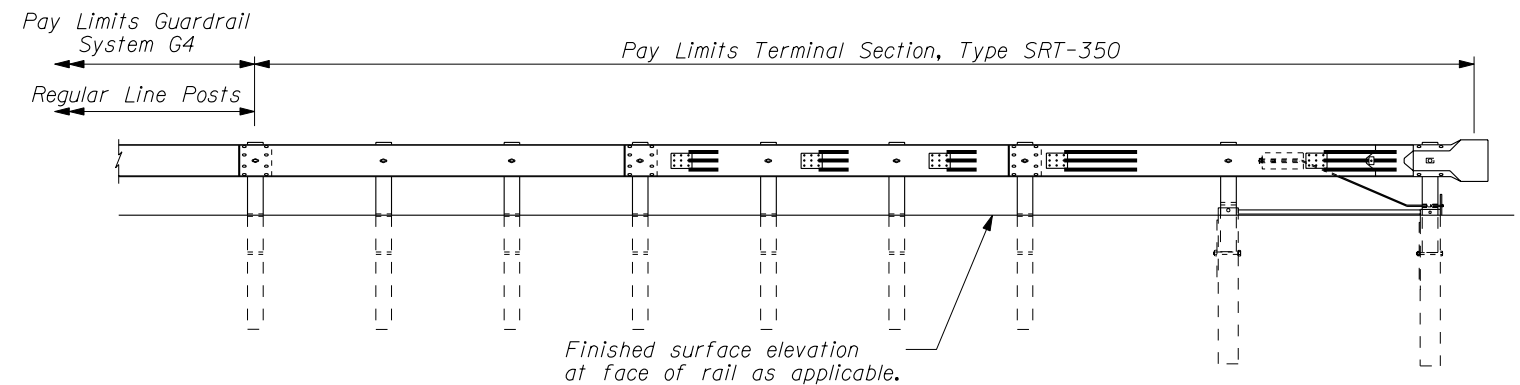
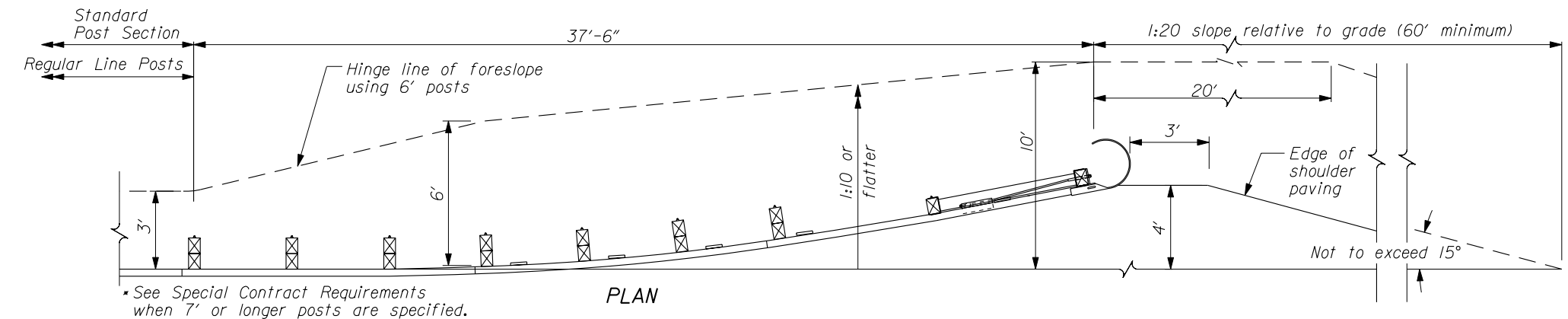


APPROACH & DEPARTURE FLARE FOR FLEAT

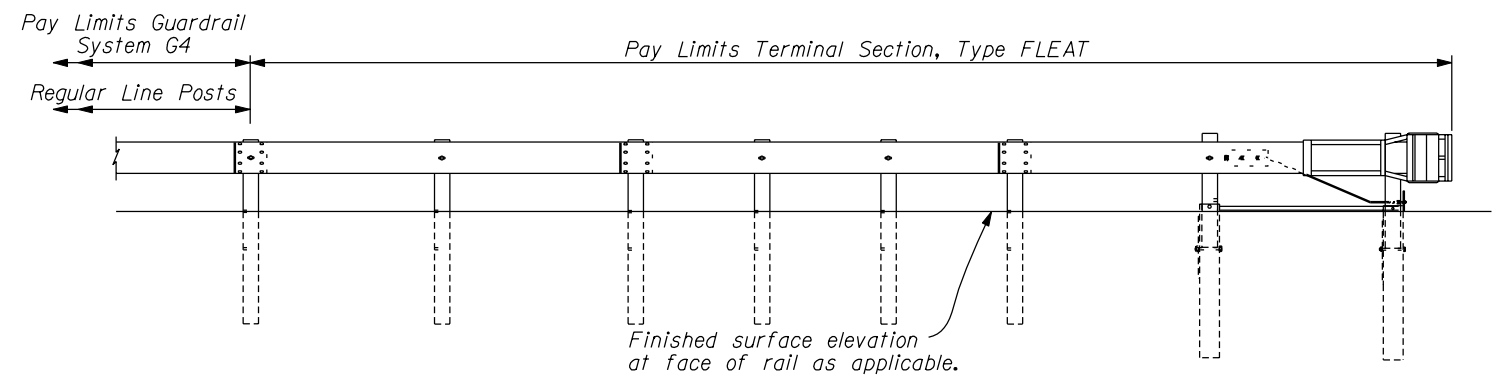
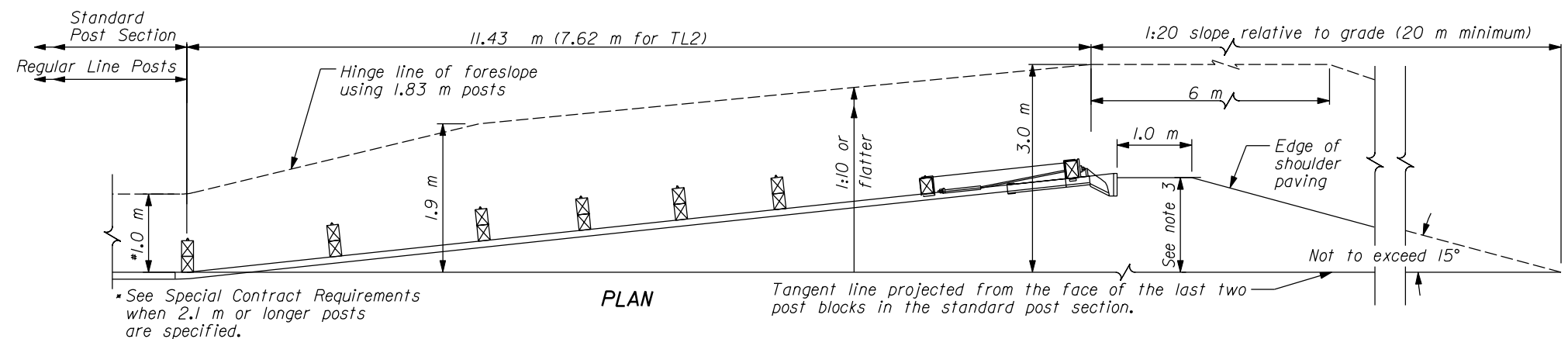


APPROACH & DEPARTURE FLARE
WITH SLOTTED RAIL TERMINAL (SRT-350)

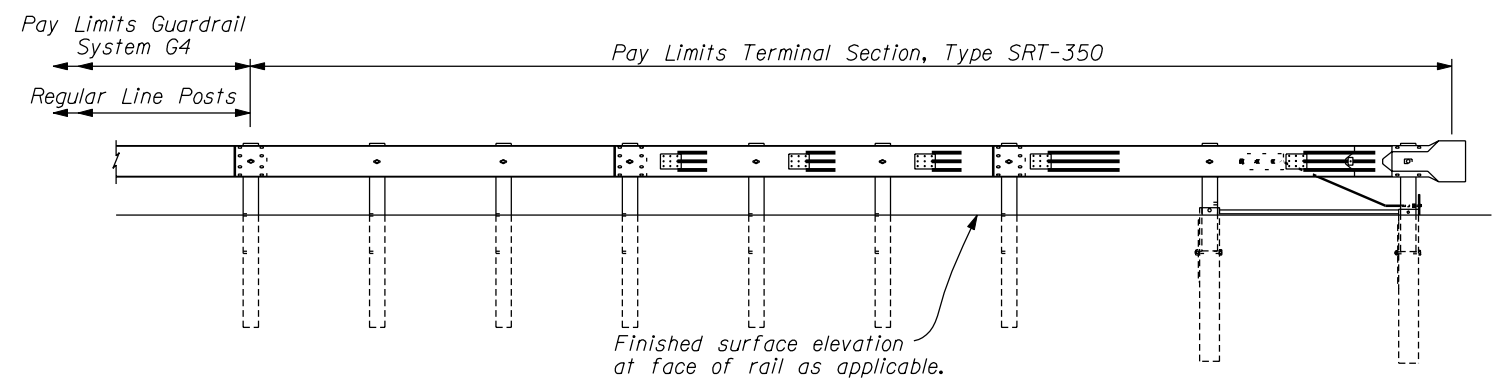
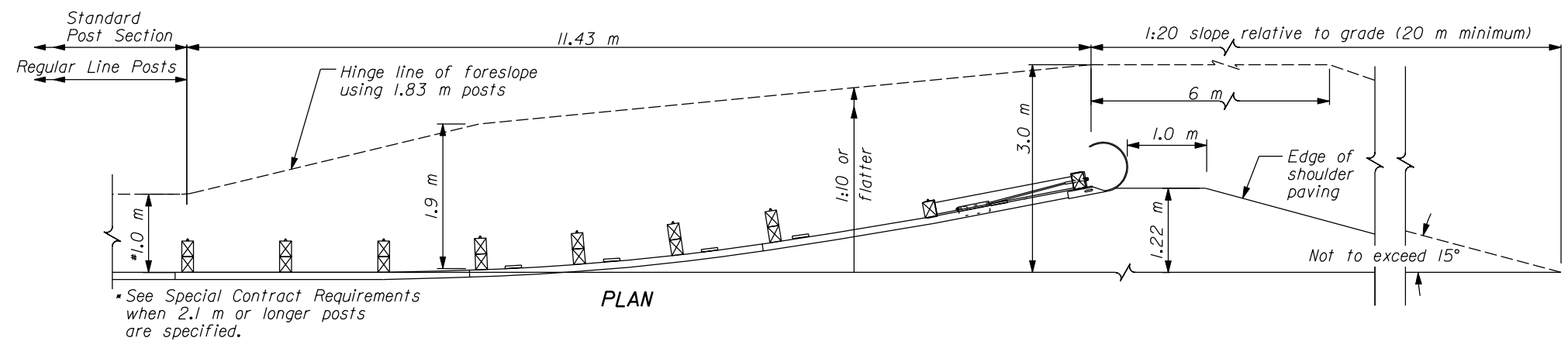
- NOTE:**
- Unless otherwise indicated in the contract, install the SRT-350 (12.5', 8 post) as manufactured by SYRO, Inc. or the FLEAT 350 as manufactured by Road Systems, Inc. per manufacturer's recommendations. If specified in the contract, install the FLEAT TL2 as manufactured by Road Systems, Inc. per manufacturer's recommendations.
 - Where terminal is placed on a curve, and post offsets would result in the rail encroaching onto the shoulder (e.g., the inside of a curve), install the posts so that the face of the rail is at the edge of the shoulder.
 - Offset distances:
FLEAT 350 - 4'
FLEAT TL2 - 1'-8" (Min)
 - Paving of widened shoulder on both ends of guardrail runs is required.
 - See manufacturer's drawings for other details.

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION WESTERN FEDERAL LANDS HIGHWAY DIVISION	
DETAIL	
G4 W BEAM GUARDRAIL TYPE FLARED TERMINAL	
DETAIL APPROVED FOR USE 5/2003	DETAIL
REVISED:	W617-19



APPROACH & DEPARTURE FLARE FOR FLEAT



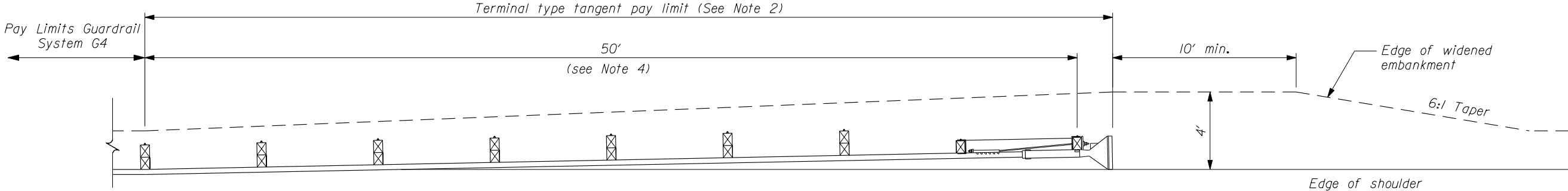
APPROACH & DEPARTURE FLARE WITH SLOTTED RAIL TERMINAL (SRT-350)

- NOTE:**
- Unless otherwise indicated in the contract, install the SRT-350 (3.81, 8 post) as manufactured by SYRO, Inc. or the FLEAT 350 as manufactured by Road Systems, Inc. per manufacturer's recommendations. If specified in the contract, install the FLEAT TL2 as manufactured by Road Systems, Inc. per manufacturer's recommendations.
 - Where terminal is placed on a curve, and post offsets would result in the rail encroaching onto the shoulder (e.g., the inside of a curve), install the posts so that the face of the rail is at the edge of the shoulder.
 - Offset distances:
FLEAT 350 - 1.220 m
FLEAT TL2 - 0.510 m (Min)
 - Paving of widened shoulder on both ends of guardrail runs is required.
 - See manufacturer's drawings for other details.

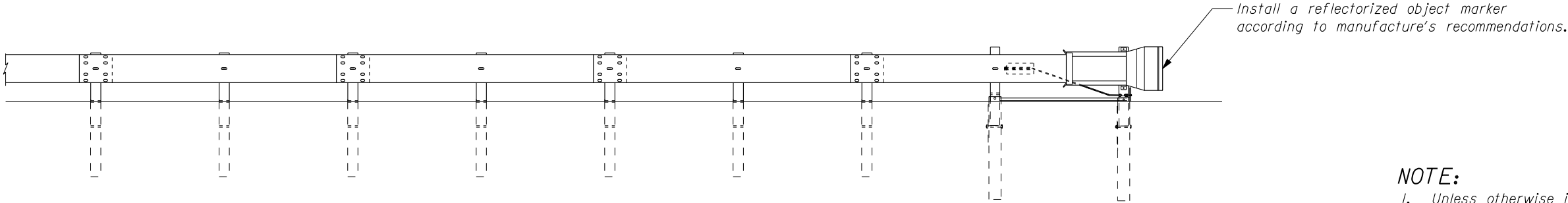
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION WESTERN FEDERAL LANDS HIGHWAY DIVISION	
METRIC DETAIL	
G4 W BEAM GUARDRAIL TYPE FLARED TERMINAL	
DETAIL APPROVED FOR USE 9/2000	DETAIL
REVISED:	WM617-19

NO SCALE

30 NOV 2000
F:\StandardDraw\Metric\DETAILS\wm61719.dgn



PLAN



ELEVATION

APPROACH & DEPARTURE FLARE
FOR TERMINAL TYPE TANGENT

- NOTE:**
1. Unless otherwise indicated in the contract, install an ET2000 - Let as manufactured by Syro Inc. or an SKT-350 as manufactured by Road Systems Inc. according to manufacturer's recommendations.
 2. When snow load post washers and snow load rail washers are required by the contract, do not install the snow load rail washers within the terminal limits.
 3. Install terminal at a 1:50 taper, ensuring that end piece is entirely off shoulder.

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WESTERN FEDERAL LANDS HIGHWAY DIVISION

DETAIL

G4 W BEAM GUARDRAIL
TYPE TANGENT TERMINAL

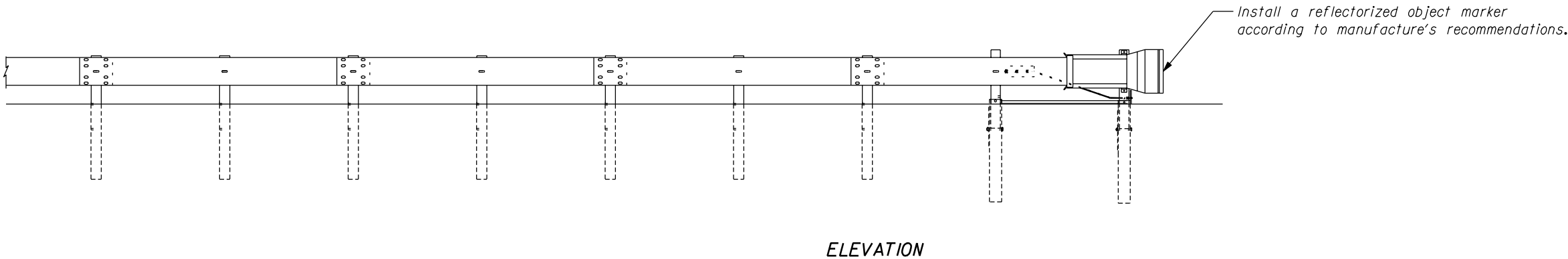
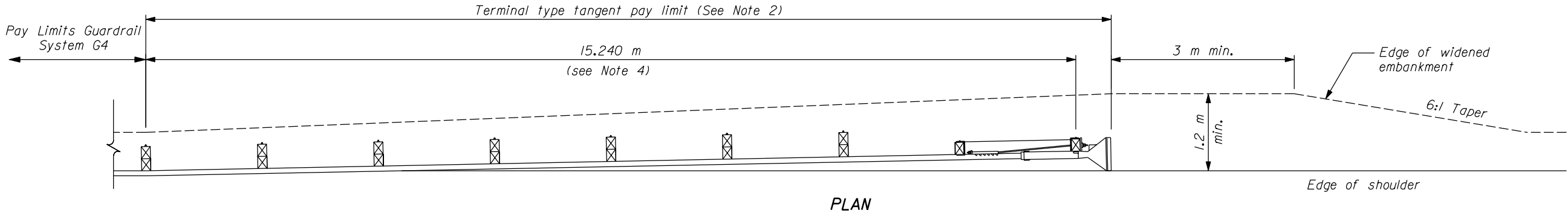
DETAIL APPROVED FOR USE 5/2003

REVISED:

DETAIL

W617-20

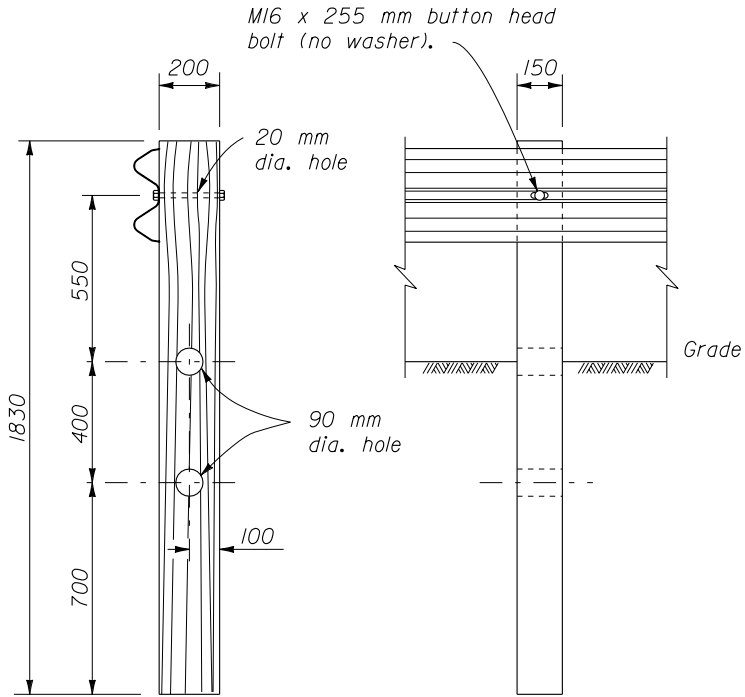
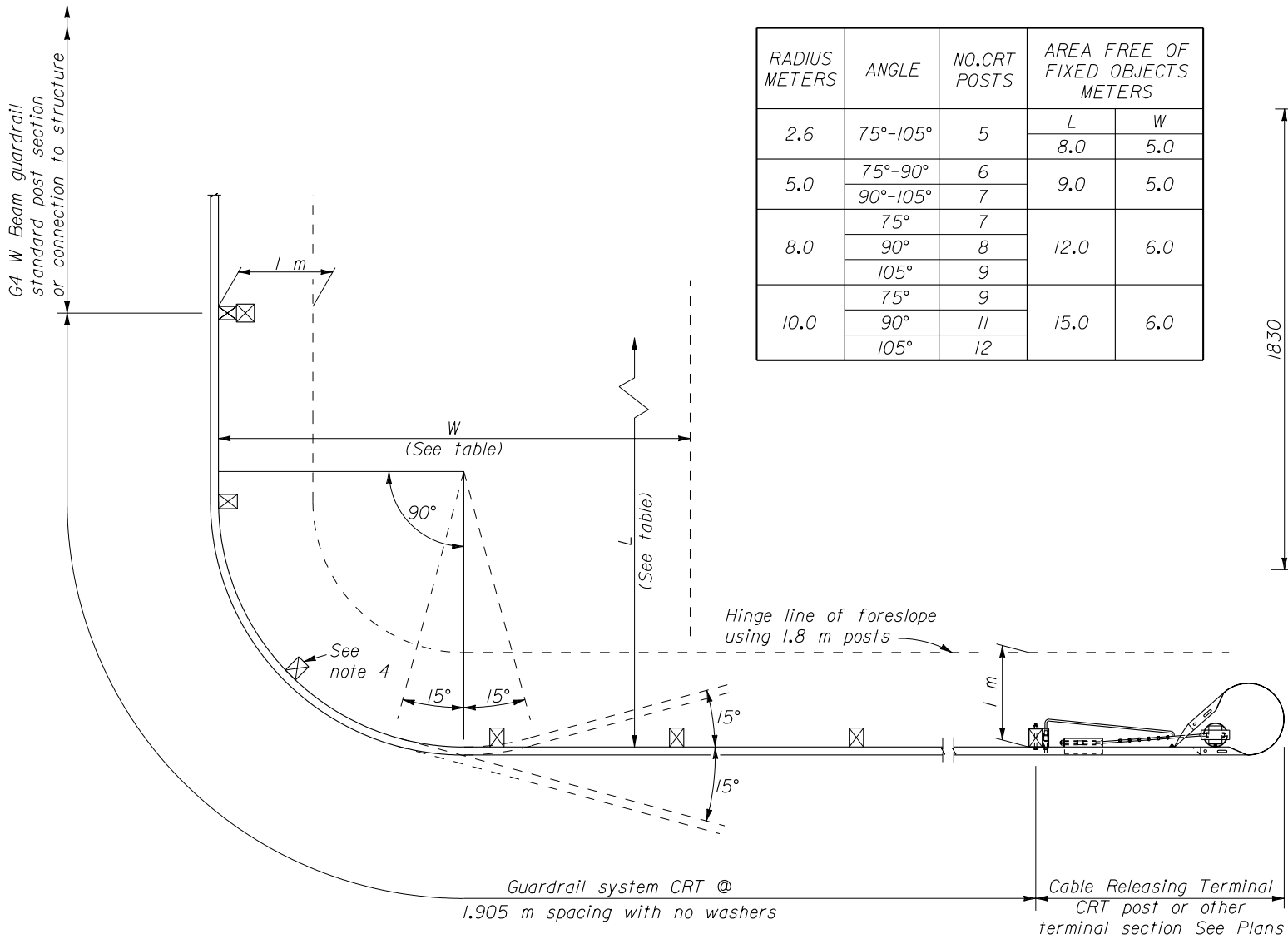
- NOTE:**
- 1. All dimensions are in millimeters unless otherwise noted.
 - 2. Unless otherwise indicated in the contract, install an ET2000 - Let as manufactured by Syro Inc. or an SKT-350 as manufactured by Road Systems Inc. according to manufacturer's recommendations.
 - 3. When snow load post washers and snow load rail washers are required by the contract, do not install the snow load rail washers within the terminal limits.
 - 4. Install terminal at a 1:50 taper, ensuring that end piece is entirely off shoulder.



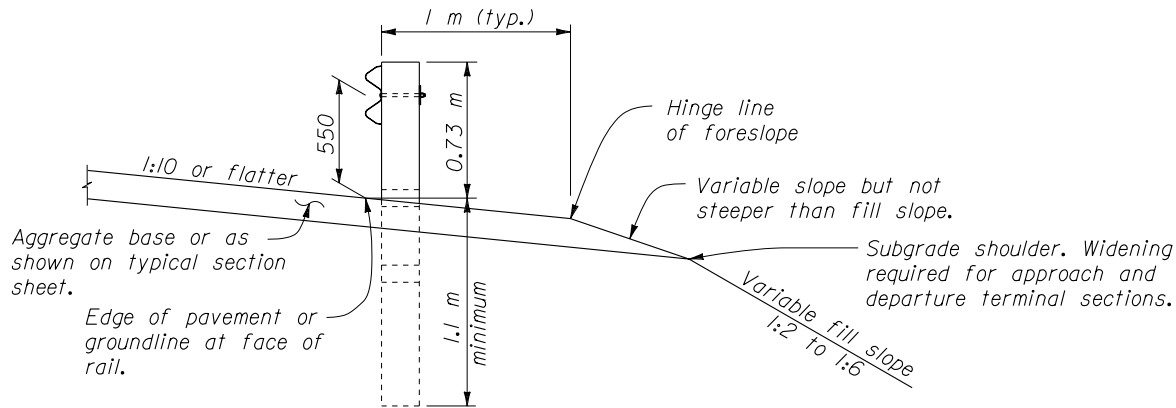
APPROACH & DEPARTURE FLARE
FOR TERMINAL TYPE TANGENT

NO SCALE

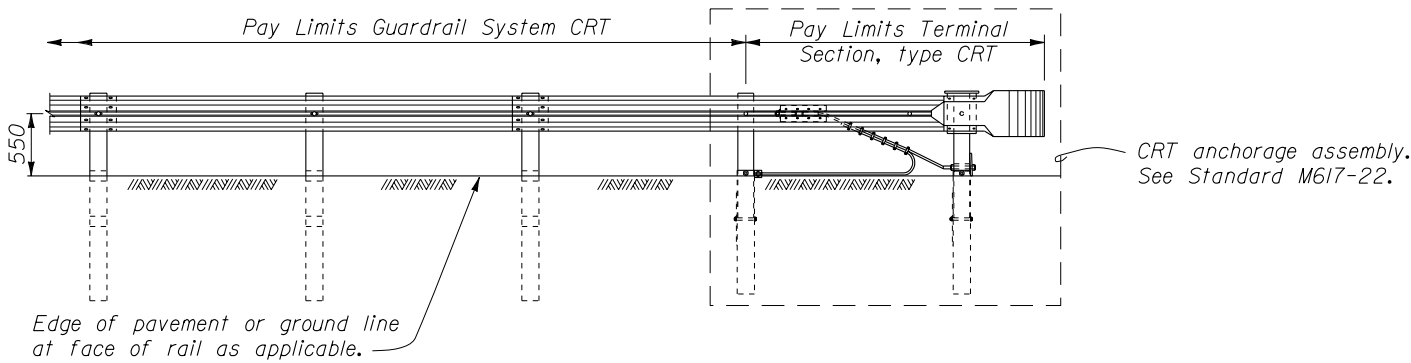
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION WESTERN FEDERAL LANDS HIGHWAY DIVISION	
METRIC DETAIL	
G4 W BEAM GUARDRAIL TYPE TANGENT TERMINAL	
DETAIL APPROVED FOR USE 9/2000	DETAIL
REVISED:	WM617-20



- NOTE:**
1. Dimensions not labeled are in millimeters.
 2. Dimensional tolerances not shown or implied are intended to be those consistent with the proper functioning of the part, including its appearance, and accepted manufacturing practices.
 3. The use of terminal section, Type CRT, is limited to driveways, road approaches and low speed minor road connections. Do not use on mainline roadways.
 4. Do not bolt post to W beam for 2.6 m radius only.
 5. Furnish hardware in the metric sizes shown. Equivalent imperial sizes may be used when metric sizes are not available.



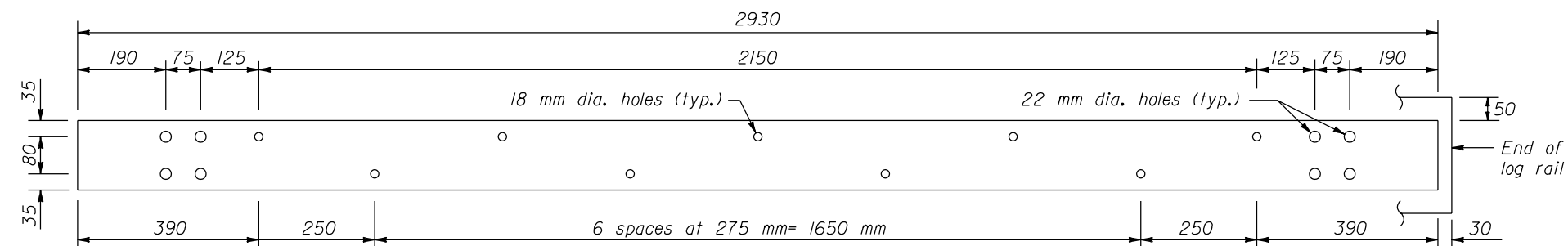
TYPICAL GUARDRAIL CROSS SECTION



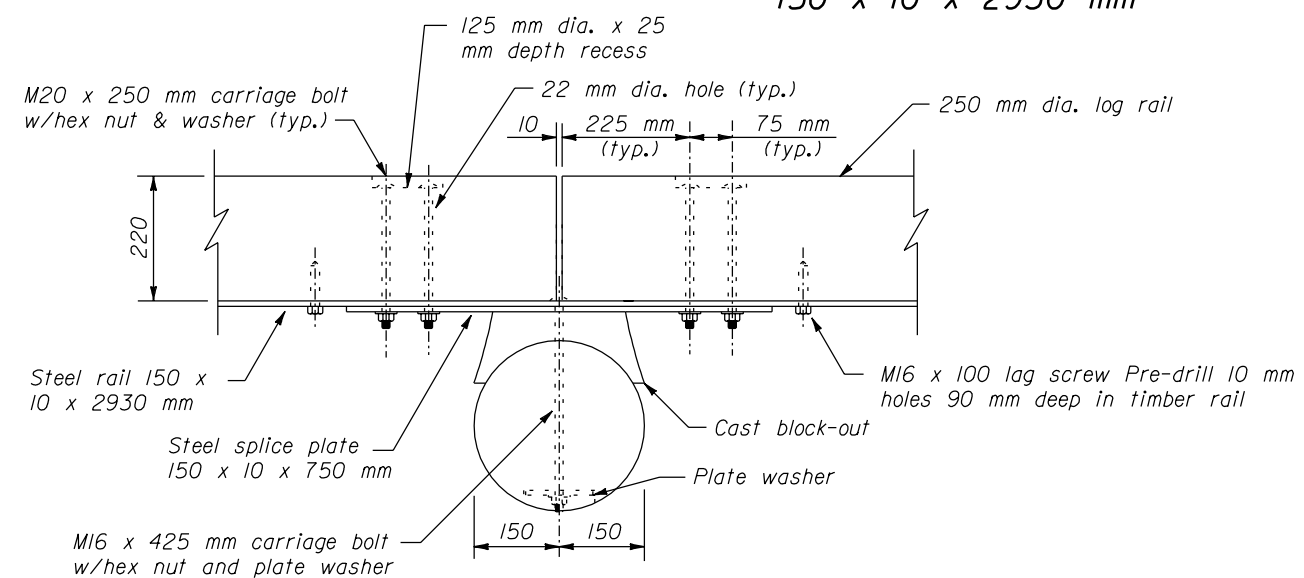
ELEVATION

GUARDRAIL SYSTEM CRT
WITH CABLE RELEASING TERMINAL CRT POSTS

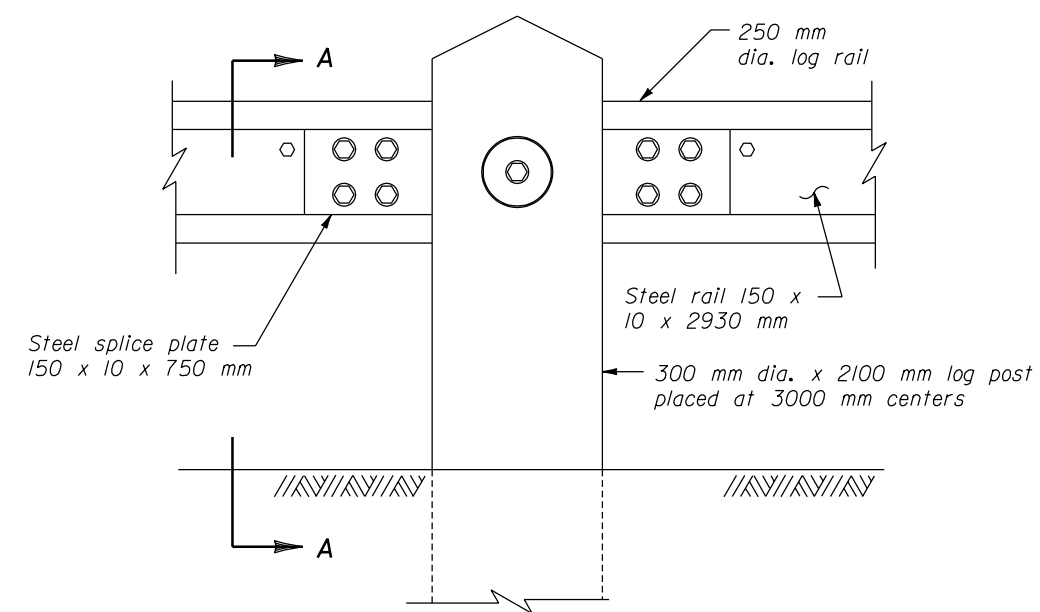
NO SCALE



STEEL RAIL
150 x 10 x 2930 mm

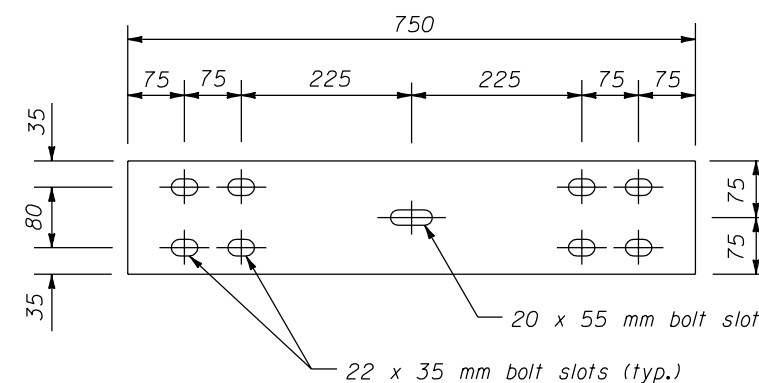


PLAN

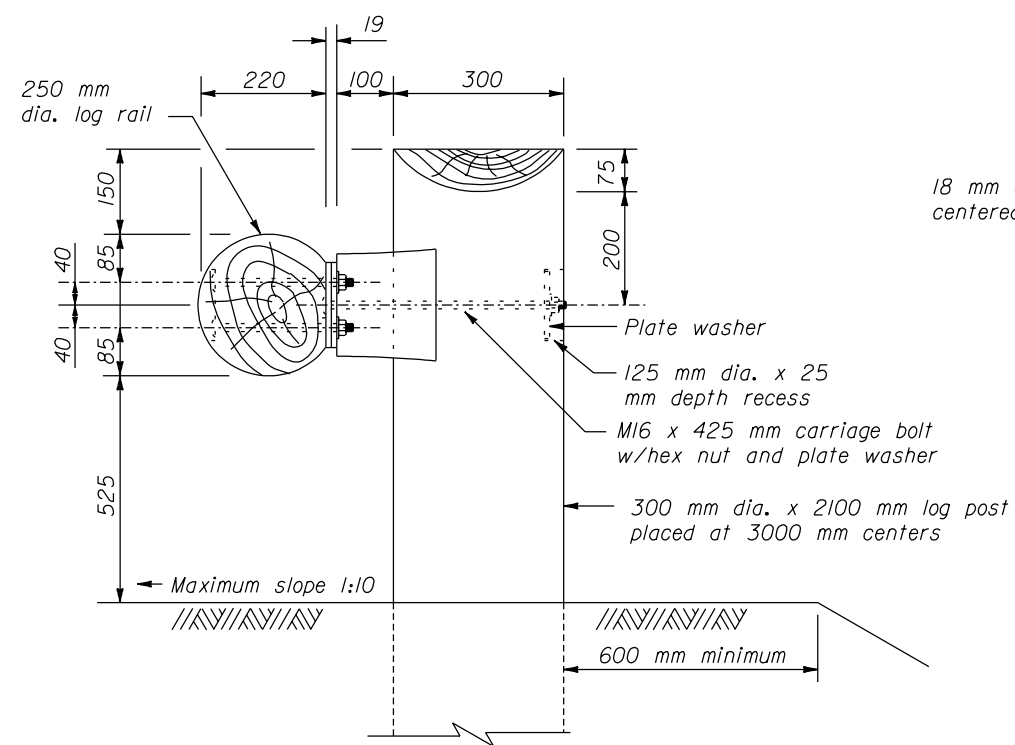


ELEVATION

POST CONNECTION



STEEL SPLICE PLATE
150 X 10 X 750 mm



SECTION A-A

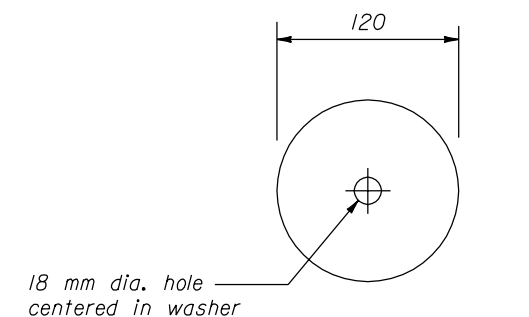


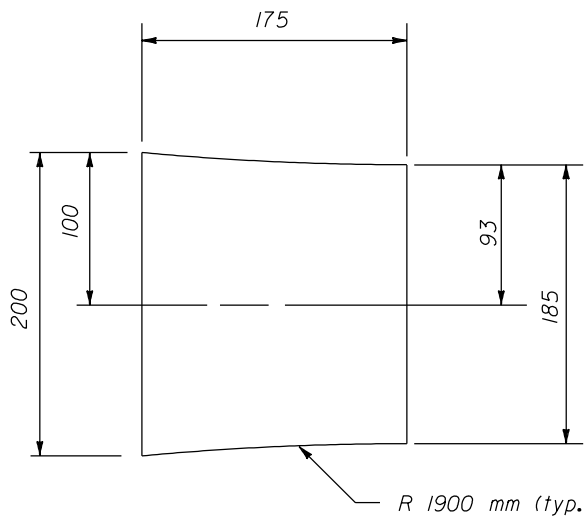
PLATE WASHER
120 mm Dia. 6 mm

NOTE:

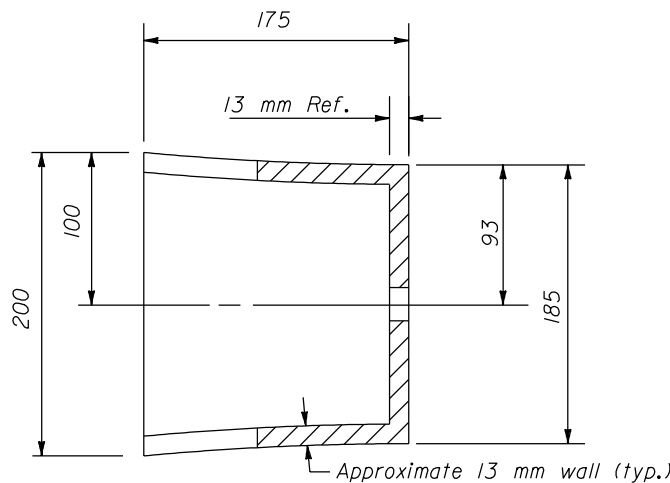
1. Dimensions not labeled are in millimeters.
2. For details of the cast block-out and general notes for Steel-Backed Log Guardrail See Standard M617-81.
3. Furnish hardware in the metric sizes shown. Equivalent imperial sizes may be used when metric sizes are not available.

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION WESTERN FEDERAL LANDS HIGHWAY DIVISION	
METRIC DETAIL	
STEEL-BACKED LOG RAIL	
DETAIL APPROVED FOR USE --/----	DETAIL
REVISED:	WM617-80

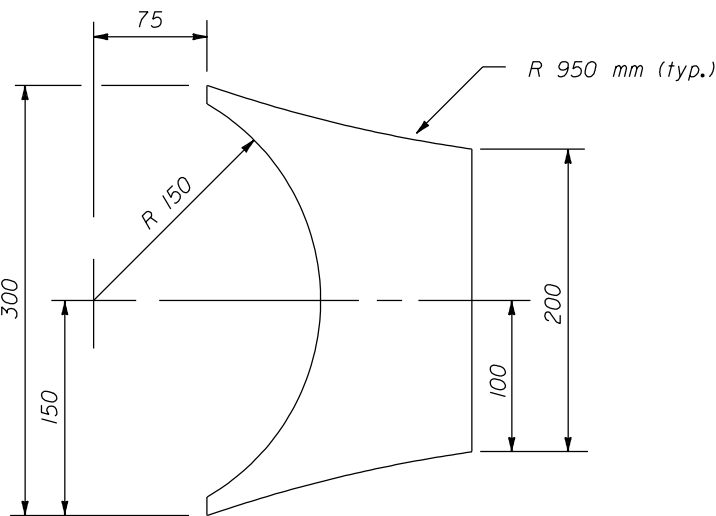
NO SCALE



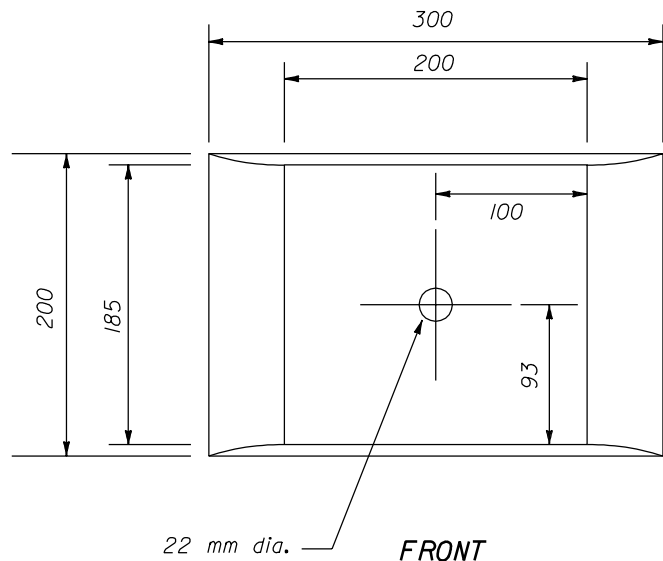
SIDE



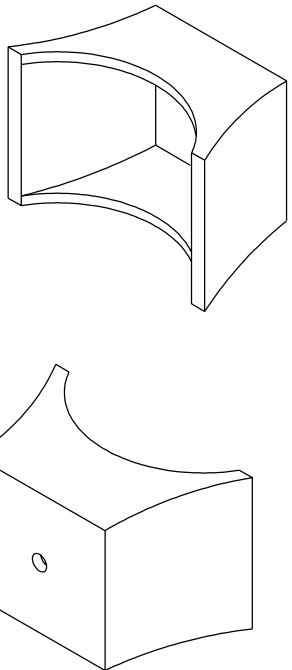
SECTION



TOP



FRONT



NOTE:

1. Dimensions not labeled are in millimeters.
2. Furnish post and rail elements of peeled, round Coastal Douglas-fir, Western hemlock, Western larch, Western pine, Jack pine or Lodgepole pine.
3. Treat post and rail elements with water-borne preservative CCA according to AWP Standard C14.
4. Install logs for rails butt to butt and tip to tip. A 50 mm maximum taper between the butt and tip ends of individual logs is permitted.
5. 6 meter logs are acceptable for rails provided the 50 mm maximum taper requirement is met and roadway curvature permits.
6. Make splices in rail elements at posts only.
7. Field cut log ends and dress as necessary to obtain tight fitting butt joints in full contact with each other at the log ends. Trim traffic exposed faces of log ends at the joints and elsewhere and dress as necessary to obtain a smooth surface with no protrusions.
8. Dress back face of log rail members to provide a flat surface wide enough to accomodate a 150 mm steel rail.
9. Apply an approved tinted brown color stain to all exposed surfaces of logs. Apply stain either as a part of or subsequent to preservative treatment.
10. Treat all field cuts and drill holes with two applications of the same preservative and stain as the rails and posts.
11. Furnish structural steel conforming to AASHTO M222 (ASTM A588).
12. Furnish corrosion resistant fastener hardware manufactured from steel conforming to AASHTO M164, Type 3 (ASTM A325, Type 3).
13. The nominal bolt length is 400 mm. Bolt lengths will vary according to log size. Extra long threaded bolts may be used, provided they are field cut so that none of the shank protrudes beyond the back of the post.
14. Cast block-out fits 300 mm diameter posts and 250 mm diameter rails with steel backing.
15. All cast steel, including hardware, conforms to AASHTO M222 or ASTM A588 (Grade C).
16. Apply a good sand cast finish to all exposed exterior surfaces. Lightly sandblast all exterior surfaces.
17. Unless otherwise specified, all exterior radii are 1 mm.
18. Unless otherwise specified all inside radii are 2 mm.

CAST BLOCK-OUT FOR 300 mm LOG POST
TO 250 mm LOG RAIL (CONCAVE OUTSIDE WALLS)

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION WESTERN FEDERAL LANDS HIGHWAY DIVISION	
METRIC DETAIL	
STEEL-BACKED LOG RAIL BLOCKOUT	
DETAIL APPROVED FOR USE --/----	DETAIL
REVISED:	WM617-81